

## **Undergraduate Research at FAU**

Few activities are as rewarding as research. In addition to the acquisition of invaluable research skills, students learn how knowledge is created and how that knowledge can be overturned with new evidence or new perspectives. They also learn how to work independently, how to overcome obstacles, and the importance of ethics and personal conduct in the research process. Undergraduate research takes place in every discipline – not only the life sciences and physical sciences but the humanities, social sciences, and creative and performing arts. Florida Atlantic University supports undergraduate research through a system of Undergraduate Research Grants and the annual Undergraduate Research Symposium. For additional information, visit:

[http://www.fau.edu/deanugstudies/Undergraduate\\_Research\\_at\\_FAU.php](http://www.fau.edu/deanugstudies/Undergraduate_Research_at_FAU.php).



**FAU**  
FLORIDA ATLANTIC UNIVERSITY  
Undergraduate Studies  
Division of Academic Affairs

# **UNDERGRADUATE RESEARCH SYMPOSIUM**

Friday, April 1, 2011

Marleen & Harold Forkas  
Alumni Center  
Boca Raton Campus

# AGENDA

Oral Presentations 11:00 am-12:00 pm  
Classroom 103  
Great Hall

Lunch 12:00-1:00 pm

Welcoming Remarks  
Dr. Edward Pratt, Dean of Undergraduate Studies  
Dr. Diane Alperin, Interim Provost

Faculty Roundtable Discussion: Mentoring in  
Undergraduate Research  
Great Hall

Poster Presentations 1:00-3:00 pm  
Great Hall

## POSTER PRESENTATIONS CONTINUED

No	Student	Topic	Supervising Faculty
33	Vanessa Romero; Edward Ruffing	Happiness Index Game	Dr. Ravi Shankar, Computer & Electrical Engineering and Computer Science; Dr. Michael Harris, Anthropology; Professor Francis McAfee, School of Communication and Multimedia Studies
34	Samantha Maki	Relating Color to Crystal Field Splitting Energy Using Vanadium(IV) Complexes	Dr. Evonne Rezler, Chemistry and Biochemistry
35	Christina Gambino	Effects of Superoxide Dismutase Levels to Different Types of Stress	Dr. Tanja Godenschwege, Biological Sciences
36	Joan Lora	The Contribution of the Prelimbic Cortex to the Disruptive Effects of Acute Ethanol on Spatial Navigation in Male C57BL/6J Mice	Dr. Robert Stackman, Biological Sciences
37	Jessene Aquino-Thomas	Factors Affecting Red Mangrove (Rhizophora mangle) Prop Roots As Habitat For Oysters (Crassostrea virginica)	Dr. Edward Proffitt, Biological Sciences
38	Adam Chen	Natural Variation at the Foraging Locus Influences Thermotolerance in Adult Drosophila Melanogaster	Dr. Kenneth Dawson-Scully, Biological Sciences
39	Richard Bagley; Swati Paghdar; Ernest Alder	A Misuse Pattern for Retrieving Data from a Database Using SQL Injection	Dr. Eduardo B. Fernandez, Computer & Electrical Engineering and Computer Science
40	Nicole Wilson	The Effects of Methionine Sulfoxide Reductase on Oxidative Stress in Drosophila melanogaster	Dr. David Binnering, Biological Sciences
	SAE Team 5 Students	Race Car (Outdoor Presentation)	Dr. Oren Masory, Ocean and Mechanical Engineering



POSTER PRESENTATIONS  
CONTINUED

No	Student	Topic	Supervising Faculty
21	Tan Ta	Better Catheter Design with Improved Liquid Flow through Tubes	Dr. Tsung-Chow Su, Ocean and Mechanical Engineering
22	Michael Galoci; Michael Amari	Preventing Fukushima Nuclear Reactor Meltdown	Dr. Tsung-Chow Su, Ocean and Mechanical Engineering
23	Danielle Krupinski	With a Finned-Hat to Lower Head's Surface Temperature: Let the Cool Head Prevail	Dr. Tsung-Chow Su, Ocean and Mechanical Engineering
24	Thiago Carvalho Diaz; Mike Flit; Windy Augustin	Technology and Design of a Fuel Cell: Photo-Voltaic Powered Vehicle with an Energy Storage System	Drs. Ali Zilouchian and Thomas Bennett, Computer & Electrical Engineering and Computer Science
25	Alek Jovic; Adam Corbin; Patric Benda; Rafia Saqib; Ian Varvaro	"Chill" Cool Shirt	Dr. Vichate Ungvichian, Computer & Electrical Engineering and Computer Science
26	Steve Hebert; Roger Bijlani; Senem Aygun; Manuel Rodriguez	Marine Safe: Remote Monitored Lighted Channel Markers	Dr. Vichate Ungvichian, Computer & Electrical Engineering and Computer Science
27	Majd Asaad; Courtney Britt; Seth Dickson	Discovering Ft. Lauderdale I	Dr. Jacobus Vos, Urban and Regional Planning
28	Elizabeth Edwards; Elliot O'Roark; Natalia Ramirez	Discovering Ft. Lauderdale II	Dr. Jacobus Vos, Urban and Regional Planning
29	Vorley Russell; Wadnel Salomon	Discovering Ft. Lauderdale III	Dr. Jacobus Vos, Urban and Regional Planning
30	Maria Tuarez; Bethany Walker	Discovering Ft. Lauderdale IV	Dr. Jacobus Vos, Urban and Regional Planning
31	Mario Miranda; George Anthony Valdes; Jason Paul McCullough	FAU Human Powered Submarine Club	Dr. Edgar An, Ocean and Mechanical Engineering
32	Tanya Kelly	Lanthanide Luminescence of GWMOF-6	Dr. Daniel de Lill, Chemistry and Biochemistry

UNDERGRADUATE RESEARCH SYMPOSIUM  
ORAL PRESENTATIONS  
11:00 A.M.—12:00 P.M.

**Classroom 103**

Student	Topic	Supervising Faculty
Alan R. Gray, Jr.	Loosing the Chains of Injustice: The Case for Trying Enemy Combatants Fairly	Dr. Mark Tunick; Dr. Miguel Ángel Vázquez, Honors College
Erika Cadena	From Borders to Neighborhoods: Explaining the Shift toward State and Local Immigration Law Enforcement in the United States	Dr. Timothy Steigenga, Honors College
Belen Lowrey	Age Dependent Variation in Spanish Internet Communication	Dr. Martha Mendoza, Languages, Linguistics, and Comparative Literature
Cassidy Henry	What's in a name? EU foreign policy through the FYRM	Dr. Christopher Ely, Honors College

**Great Hall**

Student	Topic	Supervising Faculty
Samantha Maki	An Investigative Approach to Coordination Chemistry	Dr. Evonne Rezler, Chemistry and Biochemistry
Olivia Lin Smith	Synthesis of Conformationally Rigid Analogues of Paraconic Acids	Dr. Veljko Dragojlovic, Honors College
Ancil J. Abney	Preparation and Chemiluminescence of Novel Oxalate Esters	Dr. Veljko Dragojlovic, Honors College
Mario Miranda	Design of Acoustic Remotely Operated Vehicle	Dr. Ravi Shankar, Computer & Electrical Engineering and Computer Science; Dr. Edgar An, Ocean and Mechanical Engineering

**UNDERGRADUATE RESEARCH SYMPOSIUM**  
**POSTER PRESENTATIONS**  
**1:00—3:00 P.M.**  
**GREAT HALL**

<b>No</b>	<b>Student</b>	<b>Topic</b>	<b>Supervising Faculty</b>
1	Shaina Rowell	Unconscious Plagiarism in Young and Older Adults	Dr. Julie Earles, Honors College
2	Wesley Mathieu	Personal Perceptions of Privacy	Dr. Julie Earles, Honors College
3	Hannah Norcini	Memory for Performed Actions	Dr. Julie Earles, Honors College
4	Jordy Yarnell	The Effects of Arousal on the Recall of Individuals Involved in Violent or Disgusting Events	Dr. Julie Earles, Honors College
5	Anthony Kain	Septins: One Ring to Bind Them	Dr. Nicholas Quintyne, Honors College
6	Alexa Billow	KIF9 Knockdown in Mammalian Cells Leads to Multiple Mitotic Defects	Dr. Nicholas Quintyne, Honors College
7	Lindsay McCullough	Regulation of Dynactin-Mediated Microtubule Anchoring by the p24 Subunit	Dr. Nicholas Quintyne, Honors College
8	Timothy Foo	Characterization of Selenazole Compounds as IDO Inhibitors	Dr. Andrew C. Terentis, Chemistry
9	Danice Blaise	THP-1 Monocyte Differentiation and Activation	Dr. James Hartmann, Biological Sciences
10	Marisa Chameco	The Metabolic Effects of High pCO <sub>2</sub> and Temperature on an Important Reef Macroalgae, <i>Halimeda discoidea</i>	Dr. Marguerite Koch, Biological Sciences
11	Anthony D'Errico	Effects of Sulindac and Taurine on Glutamate Induced Exocitotoxicity and Hypoxia Induced Cell Death	Dr. Howard Prentice, Biological Sciences
12	Laura Ochoa	The Role of Mitophagy in the Longevity of <i>Caenorhabditis elegans</i>	Dr. Kailiang Jia, Biological Sciences
13	Joshua Scholl	Distribution and Habitat Use of the Gopher Tortoise in a Declining Southeast Florida Conservation Area	Dr. Evelyn Frazier, Biological Sciences

**POSTER PRESENTATIONS**  
**CONTINUED**

<b>No</b>	<b>Student</b>	<b>Topic</b>	<b>Supervising Faculty</b>
14	Samantha Ciminello	Endocrine Disruptors in Treated Wastewater	Dr. Frederick Bloetscher, Civil, Environmental, and Geomatics Engineering
15	Robert Fox; Chris Rosser; Armand Buono; Jason Immerblum	Whale of a Table: A Tail of Problem to Product	Dr. Tim Van Epps, Engineering and Computer Science
16	Matthew Driscoll; Victor Anthony Echevarria; John Andrew Grimes; Roberto Jose Ibanez; Kenneth Charles Keating; Jerica Dawn Nolte; John Kelley O'Brien; Kevin Andrew Meier; William M. Valentine	COastal Renewable Energy (CORE) Structure	Dr. Karl von Ellenrieder, Ocean and Mechanical Engineering
17	Nicolas Agostinelli; Jose Luis Alvarez; Joanna Marie Ames; Cayle Allen Bradley; Benjamin Skyler Bryan; Richard Kenneth Kase; Joanmarie Danielle McKelvey; Francisco Javier Nevarez; Brandon Michael Watson	Sea Base Aerial Support System (SeaBASS)	Dr. Karl von Ellenrieder, Ocean and Mechanical Engineering
18	Kevin Pels	Recent Developments in Vapor Phase Phase-Vanishing PTFE Reactions	Dr. Veljko Dragojlovic, Honors College
19	Karenia Soto	Studies Towards Synthesis of Paraconic Acids	Dr. Veljko Dragojlovic, Honors College
20	Paulane Quiray; Umar Raja; Antonio Mohamed	Engineering a Self-Sustained Coral Reef Park with Renewable Energy	Dr. Tsung-Chow Su, Ocean and Mechanical Engineering